IN THE CLAIMS

1. (previously presented) A method of engrafting foreign replacement cells within a fetal non-human mammal, comprising the steps of:

(a) selectively destroying native cells in a tissue of a fetal non-human mammal host, wherein the number of maternal cells of the same tissue is not substantially reduced; and thereafter

(b) implanting foreign replacement cells in the tissue of the fetal non-human mammal host, whereby the foreign replacement cells replace destroyed cells of the tissue.

2. (previously presented) The method of claim 1 wherein the native cells of the tissue express a suicide gene product.

3. (previously presented) The method of claim 2 wherein the suicide gene product is selected from the group consisting of thymidine kinase, mutated thymidine kinase, cytosine deaminase, carboxylesterase, carboxypeptidase, deoxycytidine kinase, guanosine-xanthine phosphoribosyl transferase, nitroreductase, purine nucleoside phosphorylase, and thymidine phosphorylase.

4. (withdrawn) The method of claim 1 wherein the tissue is selected from the group consisting of endothelium, hematopoietic cells, neural cells, epithelium, retinal pigment epithelium, myocardium, skeletal muscle, smooth muscle, progenitor cells, stem cells, lung, intestine, kidney, endocrine tissue, cartilage, and bone.

5. (currently amended) The method of claim 1 wherein the fetal non-human mammal is selected from the group consisting of a primate, an ~~artiodactyls~~ artiodactyl, a rodent, a carnivore, and a lagomorph.

6. (withdrawn) The method of claim 1 wherein the foreign replacement cells are derived from the same species as the fetal non-human mammal host.

7. (original) The method of claim 1 wherein the foreign replacement cells are derived from a different species than the fetal non-human mammal host.

8. (original) The method of claim 1 wherein the foreign replacement cells are human cells.

9. (original) The method of claim 1 wherein the native cells are destroyed using an immunoliposome.

10. (original) The method of claim 1 wherein the native cells are destroyed using a liposome comprising a toxin or a prodrug.

11. (original) The method of claim 10 wherein the liposome comprises a tissue-specific targeting ligand.

12. (original) The method of claim 11 wherein the tissue-specific targeting ligand is an antibody.

13. (previously presented) The method of claim 1 wherein the tissue is liver.

14. (previously presented) The method of claim 1 wherein the fetal non-human mammal is an artiodactyl.

15. (previously presented) The method of claim 13 wherein the artiodactyl is a pig.

16. (previously presented) The method of claim 1 wherein the fetal non-human mammal host is a transgenic artiodactyl.

17. (previously presented) The method of claim 1 wherein the maternal cells are not transgenic.

18. (previously presented) A method of engrafting human replacement cells within a fetal pig, comprising the steps of:

(a) selectively destroying native cells in a tissue of a fetal pig, wherein the number of maternal cells of the same tissue is not substantially reduced; and thereafter

(b) implanting human replacement cells in the tissue of the fetal pig, whereby the human replacement cells replace destroyed cells of the tissue.

19. (previously presented) The method of claim 17 wherein the maternal cells are not transgenic.

20. (previously presented) The method of claim 18 wherein the fetal pig is a transgenic pig which expresses a suicide gene product.

21. (previously presented) The method of claim 18 wherein the tissue is selected from the group consisting of liver, endothelium, hematopoietic cells, neural cells, epithelium, retinal pigment epithelium, myocardium, skeletal muscle, smooth muscle, progenitor cells, stem cells, lung, intestine, kidney, endocrine tissue, cartilage, and bone.

22. (previously presented) The method of claim 20 wherein the suicide gene product is selected from the group consisting of thymidine kinase, mutated thymidine kinase, cytosine deaminase, carboxylesterase, carboxypeptidase, deoxycytidine kinase, guanosine-xanthine phosphoribosyl transferase, nitroreductase, purine nucleoside phosphorylase, and thymidine phosphorylase.